



Rethinking comparative childcare policy analysis

Example of Central and Eastern Europe

Jana Javornik

Working paper 10/2012



Department of Sociology
901 87 Umeå, Sweden
Telephone: 090-786 50 00
www.umu.se

Rethinking comparative childcare policy analysis: Example of Central and Eastern Europe

Jana Javornik

Department of Sociology, Umeå University, Sweden

Abstract

Comparative research routinely employs a small number of indicators to compare family policies across countries. In these studies, government expenditure, participation of children in public childcare or length of parental leave are internationally recognised policy indicators. However, they have been subject of academic controversy and are less adequate predictors of gendered policy incentives. This paper, therefore, theoretically and empirically explores and discusses how varieties of state de-familialism could be more fully captured in a cross-country perspective. It proposes a composite indicator for use in gendered analysis of policy incentives, one that comprises the most salient features of national policies on leave and childcare services versus some combination of policy delivery and use. Thereby, it pays explicit attention to the methodological challenges and decisions that concern case selection, concept formation, the role of counterfactuals, establishing of measurement validity, and multi-method design. Finally, the paper discusses the opportunities for future research that such approach opens up. It empirically explores its applicability on Central and Eastern EU member states – an attempt which has gained little methodologically substantiated attention so far. Going beyond the Western welfare states it demonstrates its functionality and shows how these countries could be integrated in the corpus of comparative welfare state research.

Key words: *comparative research, policy index, state de-familialism, childcare policy measures, maternal employment, Central and Eastern Europe*

Introduction

Access to paid employment has conspicuous economic, political, cultural and social implications, for both personal autonomy and gender equality (Hobson 1994; Orloff 1993). However, women's access to independent income is still largely structured by widespread gendered division of caring, whereby women continue to bear chief responsibilities (e.g. Lewis 1992; Orloff 1993). The growing body of research on economic activities has uniformly found that insofar, female employment rates generally drop subsequent to childbirth and that, in general, mothers of young children are economically disadvantaged across countries. However, the size of their disadvantage and the proportion of women who withdraw from paid employment when they care for pre-school children vary considerably across welfare states (Orloff 2002; Smith and Datta Gupta 2001).

The varieties of familialism literature (Korpi 2000; Leitner 2003; Saraceno 2011) argues that welfare states differ in the extent to which they consider the uneven capacity of mothers to invest in paid employment, and provides a theoretical perspective on how states as legislators and service suppliers use family policies to challenge/reinforce gendered caregiving – and in so doing shape mothers' employment. Whilst most

largely assume that men and women equally need to earn for their own security (Pascall and Lewis 2004: 391), they do not necessarily assume equal obligations to care for children. Some afford carers options to engage in paid employment and challenge gender-specific parenting through public policies, whereas others rely on a traditional gender division of labour, either explicitly (by investing in family care) or implicitly (by withdrawing any support to carers), thus imposing different childcare penalties on women around childbirth. Countries that combine high female employment rates with high employment rates for mothers of young children generally support their economic activities through paid, gender-neutral childcare leave and affordable high-quality public childcare service (e.g. Gornick and Meyers 2003; Leitner 2003). These policies (hereafter referred to as *childcare policies*) are considered as pillars of maternal employment, because they influence many aspects of their daily lives, from carers' ability to have careers and compete in the labour markets to the ways the children are taken care of (e.g. Esping-Andersen 2009).¹

By providing leave states grant parents time off from work to care for a child, secure carers' labour market position (e.g. Knijn and Kremer 1997) and attract women of childbearing age to enter the paid labour force to qualify for the benefits (e.g. Rubery et al. 1998: 223-234; Ruhm 1998). On the other hand, public childcare options are a necessary precondition for freeing carers' time to engage in paid employment (Esping-Andersen 2009: 80; Mandel and Semyonov 2005: 950). Therefore, childcare policies are often viewed as the main mechanism through which welfare states reduce the conflict between women's aspirations to achieve economic independence and their traditional roles as caregivers (Mandel and Semyonov, 2005: 950).² By freeing carers from the burden of care responsibilities, they bolster the incentives for women's continuous employment, and shape their prospects for gaining (adequate) income during their working lives and into retirement

In this paper I contend that this seemingly straightforward relationship is somewhat deceptive. Although childcare policies enhance mothers' employment, they can also "threaten to recreate earlier forms of gender inequality in a new form" (Jacobs and Gerson 2004 cf. Mandel and Semyonov 2005: 951). For example, a too brief and/or overly long leave increase the likelihood that mothers, not fathers, withdraw from the labour market, particularly those in less protected and secure jobs (Esping-Andersen 2009: 87). Likewise, employers may penalise the carers and avoid employing women of childbearing age to avoid any risk of their longer exits (Fagan and Hebson 2005: 90). Leitner (2003) argues that *each* welfare state combines elements of both familism and defamilism and it is their overall institutional design that signals state de-familism, i.e. whether states confine women to home (familize care) or unburden

¹ In contrast, the effect of tax systems and care-related cash benefits on maternal employment is inconclusive, with no clear pattern of association across Western capitalist countries.

² Personal decisions of women concerning their employment/caregiving are influenced by a set of macro-level factors such as the demand for female labour, household income needs, social pressures of norms and values, and social policies that reinforce them, as well as individual-level ones (for systematic literature review see Javornik 2010). But when it comes to understanding the employment gaps between mothers with pre-school children and other women, childcare policies have the highest explanatory power.

them of care obligations (externalize/defamilialize care). Namely, leave and services comprise a “package”, whereby all policy aspects together shape carers' options to engage in paid employment and to balance work and family demands (i.e. have a cumulative effect). Such observations give rise to intriguing implications of childcare policies, and call for a more systematic gender-sensitive policy analysis with more fine-grained measures than employed in earlier studies, which this paper aims to address.

Effective social policy analysis depends on the development of comparable, valid, and simple metrics. Social policy researchers routinely make complex decisions about how to design their comparative research; despite the implications these have for the findings, it is rare that scholars at length discuss the challenges they face, the choices they make, and their implications for research and policy recommendations (Kangaas and Emmenegger 2008). To operationalize childcare policies, they largely use a small number of indicators, generally of overall generosity such as government expenditure on social policy, participation of children in public childcare or length of parental leave. However, these are less adequate predictors of gendered policy incentives (Lambert 2008: 316), and many questions have been raised about their validity and commensurability (e.g. Gornick and Meyers 2003; Gilbert 2008: 129, 145).

Composite indicators which compare country performance are increasingly recognised as a useful tool in policy analysis. They provide simple comparisons of countries that can be used to illustrate complex and sometimes elusive issues in wide-ranging fields, also to operationalize childcare policies as configurations of a range of policy aspects. It often seems easier to interpret composite indicators than to identify common trends across many separate indicators, and they have also proven useful in benchmarking country performance (OECD 2008). Insofar, only a handful of policy indices have been constructed to measure the extent to which welfare states promote maternal employment (Mandel and Semyonov 2005; Misra et al. 2007; Kangas and Rostgaard 2007), and fewer still that examine how states delegate care between women and men (e.g. Gornick et al. 1997 and Gornick and Meyers 2003; Smith and Williams 2007; Lambert 2008; Kershaw 2010). These are, however, less appropriate for use in gendered analysis of policy incentives for three reasons. First, they engage too narrow a range of policy aspects (see below). Second, they fail to capture the “configurational view of policies” (Kvist 2006: 184), and hence misrepresent the cumulative effect of policies. And third, the degree to which states encourage fathers to shoulder caregiving is not covered. Insufficient attention to this element weakens any examination of childcare policies because provision for fathers is integral to understanding the degree to which states reinforce (challenge) the conventional gender care logics. As this paper argues, composite indices could send misleading policy messages if they are poorly constructed. Their “big picture” results may invite users (especially policy-makers) to draw simplistic analytical or policy conclusions (OECD 2008: 13), and hence more depth and breadth of policy design is required to encompass state de-familialism. In fact, composite indicators must be seen as a means of initiating discussion and stimulating public interest.

This paper responds by presenting and discussing a new analytical approach to policy analysis, which facilitates theoretical analysis of state de-familialism and conceptual policy logics (hereafter referred to as *emancipatory potential*) – that is, to analyze whether (or not) national policies add up to cater for maternal employment and fathers’ involvement in caregiving. The primary analytical focus is on leave arrangements and public childcare services. These are chosen because they require an active state role (Lambert 2008: 316) and are targeted specifically at carers (Leitner 2003). One innovation of this approach is its concentration on policy provisions as regulated by law and other contractual arrangements, which develops sound understanding of state assumptions about ‘proper’ gender roles. Another innovation is focus on the most salient policy features where variance in the emancipatory potential may be located. These incentive structures are finally combined into a composite policy index. This paper presents composite indexing in three steps. First, it presents the literature on composite indexing, in order to discuss advantages and shortcomings of concepts in this tradition. Drawing on recent approaches to composite indexing of childcare policies it then develops a new integrated analytical concept and illustrates how policy data provided by national regulations instead of utilizing spending data can be adopted for the operationalization. Using such policy data enables us to integrate post-socialist states in the corpus of comparative welfare state typologies – an attempt which has gained little methodologically substantiated attention in comparative studies so far. Lastly, analysis of eight post-socialist countries is performed, which provides some insight into whether, and how, their policies fit the “welfare regime” framework.

Composite indexing of childcare policies: literature review

Sainz (1989: 156-160) argues that the increasing social and economic heterogeneity of countries necessitates new conceptual approaches to combining both synthetic and specialised indicators in measurement. The search for alternative measures of social policies has witnessed the development of a variety of composite indices. These are summary measures of a number of individual indicators, empirical transformations and collation of data, often applauded for their relative simplicity (Booyesen 2002: 145). While there are several types of composite indicators, this section is concerned with those that compare countries in areas of childcare policies. It aims to contribute to a better understanding of the complexity of composite indicators and to an improvement in the techniques currently used to build them.

The motivation behind earlier efforts in composite indexing differs, but this scholarship argues that “no single yardstick exists” to measure policies just as “no single set of objectives can describe adequately the diversity” of policy (Wilson and Woods, 1982: 11). By and large, policy indexing aims to facilitate international comparisons or study a single country over time (Thiessen 1997: 13). While some employ the indices to evaluate childcare policies in Western countries (e.g. Gornick et al. 1997, 2003; Smith and Williams 2007 measure father-friendliness of leave policies; Lambert 2008 measures policy support of

maternal employment), others use them as policy variables in statistical analyses of, but not limited to, female employment (e.g. Stier et al. 2001; Kangas and Rostgaard 2007).

Within comparative scholarship, Gornick et al. (1997; 2003) were one of the first to develop indices on childcare that take gendered policy incentives into account. Their approach represents a seminal attempt to analyze childcare policies as configurations of a range of policy aspects. In order to develop metrics for the commodification of women and policy incentives for fathers' care, Gornick et al. (1997; 2003) construct three policy indices using twenty-two indicators (from mid-1990s) for twelve European countries and the United States. However, they analyze family leave *separately* from early childcare and school care services, and hence overlook their overall design and its cumulative effect. Similarly, Misra and others (2007) separately examine data on childcare services, parental leave and family benefit cash transfers in their analysis of poverty incomes for women in eleven countries. Mandel and Semyonov (2005) use a similar strategy to devise *Welfare State Intervention Index*, which combines parental leave and childcare services, along with measures of total workforce in the public social service sector. Lambert (2008) developed a *Maternal Employment Policy* (MEP) index for twenty OECD countries, using data describing only paid maternity and parental leave and publicly funded childcare from 1984 up to 2003. Bradshaw's approach (e.g. Bradshaw et al. 2006) represents another relevant methodological accomplishment in comparative policy research. Their approach provides a strong measure of the degree to which the caring responsibilities of different family formations are supported *financially* by welfare states. Methodological innovation in their research of child benefit programmes is the inclusion of a broader range of social policies than typically considered in comparative research, and from multiple levels of government. Thereby, they demonstrate how policy effects vary not only across countries but also across family structures and income within the same country. However, they have not integrated policies on leave. This is a significant oversight because leave structures familial decisions about the division of care as well as signals state's assumptions about the "proper" gender roles (Kershaw 2010).

Techniques and methods

A composite index is formed when individual indicators are compiled into a single index on the basis of an underlying theoretical concept. An index should ideally measure multidimensional concepts which cannot be captured by a single indicator, e.g. social policies. Policy indexing entails the aggregation of a number of policy aspects, components and indicators, and such multidimensionality of indices is key advantage of this approach. The procedure involves four steps: selection of indicators (content of composite index), scaling, weighting, aggregation, and validation (McGranahan et al. 1972). These steps do not necessarily follow in this order, and the selection can be altered, weights adjusted and variables rescaled in order to arrive at the final index score (Booyesen 2002).

Selection of variables

In this phase, choices regarding two issues are made. First, the number and the nature of components that make up the composite index are determined (Ginsberg et al. 1986). Central consideration here is the purpose of measurement and the conceptual framework stands central in this respect. Second, specific indicators are selected (Booyesen 2002). Early policy indices comprise a broad range of indicators, depending upon their research focus and ambition. Selection is based either on theory and empirical analysis, pragmatism or intuitive appeal, or some combination thereof (Diener and Suh 1997: 192-200). Political and policy considerations also play a role insofar as the indices are often developed with a view to informing particular audience (e.g. Plantenga et al.'s 2009 gender equality index, which integrates childcare policies). However, any indexing requires a balance between simplification and complication (McGranahan et al. 1972: 8-10). Hence, the key question here is what aspects of policies any chosen indicator measures.

Earlier indices largely comprise “standard policy measures” (such as participation of children in day care, public spending on childcare, length of leave). These are largely quantitative attributes, and relatively easy to gather, at least for the OECD countries. However, their main shortcoming is that they conflate policy character and policy use, and hence misrepresent its emancipatory potential. This can be exemplified by “enrolment in day care” and “public spending on childcare”, conventionally used to operationalize childcare services. This data interacts with national legislation, access criteria and availability of day care places (Gilbert 2008: 129, 145), alternative care options and care preferences. Furthermore, states use different funding streams to finance childcare services, using the central government funding stream to municipalities differently (e.g. to finance childcare support for social assistance clients). This is not reflected in national statistics of state investment in childcare, especially when local governments do not report on spending on childcare services. Moreover, cross-national databases on public expenditure on childcare and early educational services (such as the Eurostat and OECD family database) only cover information on education programmes, which excludes services for children under three. Thus, any such measure provides a limited understanding of policy character and whether state contributes to or hinders gender equality. Furthermore, earlier indices, in general, do not distinguish between policies that facilitate maternal employment and shared parenting (e.g. well-paid shorter leave, paternity leave) and those that discourage it (e.g. child allowances, unpaid leave). Even combining leave benefits and childcare services, as Mandel and Semyonov (2005) do, risks occluding that the policy design of one may be working against the other, which this past work fails to integrate. Although Lambert (2008: 321) aims to avoid this pitfall in her MEP by measuring only the first year of leave (in recognition that the longer paid leave reduces the likelihood that women would return to work), Misra et al. (2007: 806) are correct to argue that “more fine-grained measures lead to more precise understandings of policy effects.” Lastly, the degree to which states encourage fathers to shoulder caregiving is largely not covered. Insufficient attention to this element weakens analysis, because provisions for fathers are integral to understanding the degree to which

states reinforce/challenge gendered care logics. It is essential for any comparative policy analysis to “recognize the different assumptions embedded in work-family policies and their potential impact on differing groups of women” (Misra et al. 2007: 807) as well as men if we are to analyze policy dis/incentives.

Standardization and weighting

Two main advantages of composite indexing are, first, that any variable type can be employed, either in their original form or rescaled, when indicators need be standardized (Dunn-Rankin 1983: 1-8). And second, variables are not required to be expressed in similar units (Morgan 1968: 35-7; Booysen 2002: 123-6). In earlier policy indexing, scaling is performed in one of four ways. First, there is option of not scaling variables. This is viable when variables are already scaled (e.g. reported in percentage terms or some ordinal response scale such as in the case of Gornick et al. 1997 and 2003). Key criterion is that unscaled variables can be meaningfully added or subtracted, multiplied or divided (Morgan 1968: 35-7). Second, the use of standard scores (e.g. z and t values) is also popular (e.g. Kangaas and Rostgard 2007). Third option is to transform variables into ordinal/interval scale. In the case of Gornick et al.’s (1997; 2003) index, for example, policy items are graded on a scale from 0.33 (least policy support) to 1 (most policy support), using semantically defined ratings (Booyesen 2002: 124). Smith and Williams (2007) applied a “benchmarking approach”, assessing policies against a set of standards on a scale from 1 to 10 (Camp in Schütz et al. 1998: 2).³ The reference points for scaling can be selected relative to the observed minimum and maximum values of the particular variable, or, alternatively, can be determined relative to expert expectations. Fourth, in the conventional linear scaling variables are scaled from 0 to 100, using the min/max methodology (e.g. Plantenga et al. 2009). Index values are determined by subtracting min/max value of the variable from its actual value, dividing it by the difference between the selected min/max values. Largely, the reference points depend on the variable’s character and the key criterion is that a balance be found between the width of the range and the spread of index scores, which allows countries to be meaningfully distinguished from one another (Babbie 1995: 161-175).

On the other hand, deciding what weights, if any, to give to index’ components has been a conceptual problem (for a systematic review see, for example, Booysen 2002). Some writers explicitly argue that assigning any explicit weights to components we arrive at erroneous conclusions (e.g. Bradshaw et al. 2006: 24-5; Plantenga et al. 2009: 25; Schütz et al. 1998: 41-3). Hence, they do not introduce any explicit weighting other than those implicitly introduced during the scaling of variables. Thus, component- and index scores are simply averages of the corresponding variable and component scores. Where explicit weights are employed, the conventional practice is to use ad hoc, expert-based weighting (e.g. Kangaas and Rostgard 2007) or the explicit agreement is made between, for example, policymakers, as to “the desirability of different goals or collective utility functions” (Booyesen 2002: 127). Sen, for example, argues

³ The method was first introduced in the private sector to enhance efficiency by comparing and assessing the performance of one company against a certain benchmark (Schütz et al. 1998; Tronti 1998).

that what weights may be applied in the composite index is “ultimately a matter for social choice” supported by “enlightened public discussion” (2000: 21). Although transparent weights that emerge from social choice process could be viewed as having greater legitimacy than value judgements of researchers, the latter are just as legitimate as the former (e.g. Bates 2009: 11), especially in the lack of standard methodology. Overall, different weights imply different results (Morris 1979: 41-56). These are, in general, arbitrary, and many indices lack adequate justification for the particular weighting (Dowrick and Quiggin 1998: 106; Booysen 2002: 131-142). Therefore, many scholars argue for equal weighting as the norm (e.g. Babbie 1995: 161-175; Bradshaw et al. 2006: 24-5; Plantenga et al. 2009: 25; Schütz et al. 1998: 41-3).

Aggregation of composite index

Lastly, the scores are aggregated into a composite score. The aggregation is either additive or of a functional nature. The former entails the mere addition of component scores to arrive at index values (used by, e.g., Gornick et al. 2003; Plantenga et al. 2009), whereas the latter is based on the estimated functional relationship between certain variables (e.g. Adelman and Morris 1972: 111-2). Given the general characteristics of early policy indices, index scores are quantitative and, in general, presented in numerical format. As such, they can be used in any type of (statistical) analysis.

Simplicity and flexibility of policy index

Variety of policy indices presented herein induces discussion on the political and policy relevance of the index as an analytical tool, its validity and data reliability (e.g. Plantenga et al. 2009). However, systematically reviewing rich literature on composite indexing, I argue that its ability to integrate various policy dimensions – be it a quantitative or a qualitative attribute – allows a better balance between simplification and complication of policies, and hence facilitates policy comparisons (e.g. Ragin 2009: 5). When evaluated at regular intervals, an index can point out the direction of change across countries and through time. In the context of policy analysis, this is particularly useful in identifying trends and drawing attention to particular issues. It can also be helpful in setting policy priorities and in benchmarking or monitoring performance. Indexing is relatively flexible, because changes in selection, scaling, weighting and aggregation are “effected readily, albeit at the cost of comparability” (Booyesen 2002: 115). Composite indexing simplifies complex measurement constructs, while it excels in providing a more informed understanding of state assumptions, goals and priorities (Kvist 2006: 184). In this light, multidimensionality is its main advantage for theoretical analysis of state de-familialism, in addition to yielding the variable with enhanced explanatory potential. Nevertheless, as with any research method, here too not one element of composite indexing is above criticism. Important selection/operational problems exist, and the selection of method employed in selection, scaling, weighting and aggregation is dependent on the nature, the scope and the focus of a particular study. These have been subject of academic controversy, which suggests that the early policy indices are less appropriate for measuring comprehensively state de-familialism versus some combination of policy delivery and use. This calls for a new integrated analytical approach to comparative social policy analysis.

Towards a new childcare policy index

To provide some perspectives for a more meaningful discussion on varieties of state de-familialism, I devise a new analytical approach to social policy analysis, which results in a practically functional indicator for comparative policy analysis – the policy index. This would ideally meet the following requirements. It should remain relatively simple in terms of construction and interpretation, in order to facilitate cross-country and inter-temporal comparison (Plantenga et al. 2009: 22, Booysen 2002: 129). It should integrate the most salient policy features of state de-familialism, while balancing simplification and complication (McGranahan et al. 1972: 8-10). Ultimately, it should clearly focus on state assumptions about ‘proper gender roles’ without conflating them with policy delivery, its use and carers’ preferences.

Conceptual framework

The underlying assumption of this new analytical approach is that being defamilialized/commodified is good for women. I assume that there is a strong case that women both need and value paid employment. On the one hand, welfare systems are dominated by employment-led social policies (Lewis 2010). While the prevalence of waged labour as a source of welfare entitlement makes labour force participation more compulsory, mothers’ employment has also become a more pressing necessity for the majority to protect against falling living standards and insecurity. On the other hand, paid employment enables women’s command of their economic resources independently of their familial reciprocities, and enables them to establish “autonomous households” (Orloff 1993: 323). Here, the critical question is whether (or not) it is beneficial when women are obliged to work to gain benefits and support themselves and their families. However, without some sense of what is “good for women” it is difficult to imagine how one would choose variables that matter; in any case, it is difficult to avoid some evaluative implications (Pascall and Manning 2000: 244).

Analytical conceptualization of state de-familialism is used to chart national policies as follows.

Defamilialism characterizes optimal policy, whereby the state allows mothers to fulfil dual roles as carers and paid workers first by providing well-paid flexible leave to both parents of moderate duration, and by absorbing part of care obligations thereafter by providing adequate, accessible and affordable high-quality formal services. Here, defamilialistic policies challenge the conventional gender division of labour when they contain “incentives to ensure that care provision is shared on equal terms among male and female family members” (Leitner 2003: 367). In contrast, *state familialism* undermines the importance of women’s continuous employment for their lifetime earnings and personal autonomy and reinforce the conventional gendered caregiving, either *explicitly* (providing cash for care without public care alternatives) or *implicitly* (providing no support to parents). When states recognize that carers have different lifestyle preferences, they afford them the option to choose among different childcare solutions and lifestyles by providing *optionally de-familialistic* policies (both cash-for-care and formal childcare are available). As discussed further

below, the novelty of the approach presented herein lies not only on its indicator-selection but also the country sample.

Country sample and time period

The index builds on comparative analysis of eight post-socialist countries that entered the EU in 2004, which have been much less studied: Czech Republic, Estonia, Hungary, Latvia, Lithuania, Slovakia, Slovenia, and Poland. These are chosen for revealing the overarching characteristics that follow from post-socialist transition. Namely, they form a somewhat coherent post-socialist group in terms of economic development (von Wahl 2008: 27), which eases interpretation and facilitates contextual equivalence (Mangen 2004: 313). At the same time, they embody significant variations along the lines of state-socialist histories, public mainstream's political orientation, and the prevailing power structures (Javornik 2010). These have induced remarkable variations in the extent and the content of childcare policies, which is overlooked when studies use the 'conventional' "post-socialist/communist welfare regime". Analysis covers the period between 2000 and 2008, in order to analyze policy developments after the radical socioeconomic transformations in the 1990s and around the period of accession to the EU.

Data Source

Information on leave policies derives from the Mutual Information System on Social Protection in the Member States of the European Union. Policy information 2000-2002 is collated from the Mutual Information System on Social Protection in Central and Eastern European Countries. Information on formal childcare services is collated from the extensive library of sources: European Eurydice unit of the Education in Europe Network, 'Education at a Glance' series, OECD Family Database, Eurostat and the European Commission, Council of Europe, Unicef, and national administrative and other relevant agencies and ministries. I also contacted policy experts and national ministries and other institutions responsible for social protection and education; they reviewed the policy information and provided any missing information.

Composite indexing: Dimensions

Analysis integrates policy provisions on leave and formal childcare services as regulated by law and other national contractual arrangements. The two policies are chosen because they require active state role (Lambert 2008: 316) and are targeted specifically at carers (Leitner 2003).⁴ Leave dimension comprises policy entitlements to time off and integrates maternity, paternity, parental and extended childcare leave.⁵ Childcare dimensions comprise policy on formal (i.e. publicly funded and/or regulated) childcare services

⁴ Empirical research that statistically tested explanatory power of various factors of female employment finds inconclusive effects of tax systems and care-related cash benefits on maternal employment, with no clear pattern of association across Western capitalist countries (for systematic review see Javornik 2010). In the lack of clear empirical touchstones, they are excluded from this analysis.

⁵ Any other type is excluded and the index neither assesses what period of time in standard employment contract builds up the entitlement nor the minima or the caps installed into the benefit payments.

for children aged 0 to compulsory school age.⁶ The index integrates national regulations of centre-based day care, whereas any other public childcare is not within scope because of data limitations. It should be emphasised that the index holds no information on policy delivery and use.

Drawing on varieties of familism theory as outlined in past research of maternal employment, I chose twelve policy dimensions: total length of leave time, income support payments during leave, job protection during leave, flexibility of leave provision, parental entitlements, and daddy-quotas reflect policies on leave; availability of services (four subdimensions), their affordability, and quality reflect the public childcare service provision (summarized in Figure 1). Together, these provide comprehensive information about state de-familism. Differential policy entitlements, such as for single parents, parents of more children, ethnic minority groups are not considered, because there is no standard way to draw the line between more/less supportive policy for specific groups of parents. This “whole population approach” (Sobotka 2004: 43) may hamper analysis of policy implications for women in different situations. However, it is not my intention to suggest that policy entitlements do not have a differential impact upon different groups of parents, but rather to highlight that we could arrive at erroneous conclusions about policy design should we assess them without any robust empirical touchstones.

Scoring

To analyze dis/incentive effect of national policies, I use a scoring (benchmarking) technique. Using this Weberian *ideal-types* approach, national policies are assessed and compared against a set of standards repeatedly in subsequent points in time (Miller 2005: 68). Adapting the approach used by Smith and Williams (2007), each dimension is compared against an optimal policy on a common interval scale with a four-value set of 1-2-4-8. These scores measure the dis/incentive effect of policies and indicate the emancipatory potential of each component (assessment criteria summarized in Figure 1):

- 8 indicates that the component is close to the optimal provision;
- 4 fairly close to the optimum;
- 2 more or less remote from the optimum; and
- 1 fairly remote from the optimal policy.

The idea behind the 1-8 scale is to choose a geometric sequence, so that logarithms yield an arithmetic sequence (Coray 2009: personal communication). 8 is used as a maximum score, because 10 (or 100), largely used in earlier studies, has too strong an influence on the results in a comparative perspective. Further, the index score is computed using the multiplicative method, and there would be a problem if some figures were zero (multiply by 0 means losing information).⁷

⁶ Terms ‘formal’ and ‘public’ refer to any service when the provider (be it a public authority or a private founder) receives public funding and/or is subject to public control.

⁷ I made tests for various different scales (e.g. 1-3-5-10; 1-3-6-10), and found marginal differences in the results. Overall, the chosen scale is robust and more in line with the multiplicative approach, because the logarithms are equidistant (Coray 2009, personal communication).

Empirical breakpoints for “more/less” optimal policy are drawn from various theoretical and empirical sources and the index is built on the following assumptions about optimal provisions. (1) **Leave** positively affects maternal employment and encourages fathers’ caregiving when states grant paid time off from 6 months up to a year with safeguarded job while carers are on leave (Jaumotte 2003: 17). Leave is gender-neutral and integrates men into home care when financial compensation is high (paid at minimum 70% of previous earnings; Wall et al. 2009: 36), provided as an individual entitlement of both parents, with some time targeted specifically at fathers on a non-transferable basis (Pylkkänen and Smith 2003), and can be used in sections over a longer period of time (Plantenga and Remery 2005: 48). Such policy speeds up mothers’ return to work after childbirth, and has less detrimental effects on their job progression and lifetime earnings. In contrast, leave of less than 6 months or over a year, but especially leave of over two years generate incentives for women to retreat from the labour force for a longer period of time (Pettit and Hook 2005). Mothers face more difficulties returning to the labour force after childbirth, are more likely to experience a job re-assignment upon their return, and face greater wage penalties in the longer run. This notwithstanding, leave is detrimental to mothers’ employment when it is unpaid or poorly paid, or paid at a high rate for more than a year with no flexibility in its use. But when no daddy leave is granted, state explicitly perpetuates conventional gendered caregiving. (2) **Formal/Public childcare services** support mothers in paid employment and indicate to what extent the state defamilializes care. Overall policy effect depends on three aspects: availability, affordability, and quality of service provision. On the household level, services affect women’s decisions whether (or not) to participate in the labour force, and shape opportunity-cost effects of maternal employment: adequate, accessible and affordable services of high quality increase relative attractiveness of time spent in the labour force as opposed to the time spent in the home. Public services can be market-driven (e.g. US, Ireland) or directed and regulated by the state (as in much of Western Europe). When regulated by the state, part of the financial burden of childcare shifts from parents to the tax-payers in general (through taxes and contributions), which reduces the financial burdens of carers. Regulated service provision also enhances parents’ confidence in public childcare (Gornick and Meyers 2003), and reduces costs related to ‘browsing the care market’ to locate good-quality service (Pettit and Hook 2005). When provision is directed by the state, its availability, affordability and quality are determined by access criteria, financing principles, and service operating hours (Gornick et al. 2003). State guidance, national co-ordination and public oversight of service provision enhance fair access to public childcare service and prevent intra-country disparities in service provision across lower administration units.

[Figure 1 about here]

Policy components and benchmarks are based on the empirical evidence from Western countries. Although this approach may be criticized for applying them to the post-socialist context, this is not a disadvantage. Their relevance is theoretically and empirically sound and well justified in consistent theoretical arguments and strong empirical evidence on what constitutes optimal state support for

mothers' employment. Moreover, it is explicitly stated what is measured, and how. The procedure is applied uniformly across countries and over time, and score validity can be tested retrospectively as required in a cross-country comparison. It should be emphasized, however, that policies in this study are scored relative to each other: each score reflects similarity and diversity of countries in this study (O'Reilly 2006: 744; Ragin 2009: 5). Therefore, 'more' familialistic versus 'less' familialistic is defined relative to other countries. This method is made explicit and is applied uniformly across countries and time, and hence produces a uniform standard as required in a cross-country comparison.

Policy analysis using spider charts

To summarize policies and provide synoptic overview of the distance of policy components and overall policy from the optimal policy (and any inconsistencies), a graphical method of spider (radar) charts is employed. These are analytical tools, developed in connection with the benchmarking approach (Friendly 1991: 158-162; Mosley and Mayer 1998: 5; Schütz et al. 1998; Tronti 1998; Plantenga and Hansen 1999). Charts comprise twelve equi-angular spokes (radii) - one for each policy component - starting from the same point. The length of each spoke is proportional to the index score, and ranges between 1 and 8. The line connects these scores into a radial figure, which gives policy a star-shaped appearance: the larger its area the higher its emancipatory potential.

At first sight, radar charts are just another way of presenting policies. However, they offer a number of analytical advantages as well as a wide range of possible applications for policy analysis. First, they provide a simplified presentation of policy. Weak/strong policy aspects can easily be identified, because the distance of policy components from the optimum is illustrated in a highly intuitive way, even to a non-expert. Second, graphical presentation allows cross- and intra-country analysis as well as temporal analysis, hence allowing a fuller insight into how complex national policies are. Third, the surface area of each chart forms a composite policy in a given country in a given year, which allows us to analyze policy dynamics. By and large, radar charts are superior to composite index scores for presenting policy panorama, and to identify any contradictions between the policies. They suggest tentative assignments with regard to state de-familialism, and I use them to divide up countries into groups from more defamilialistic to more familialistic.

Calculating the index

If spider charts are used for descriptive purposes, the composite index score can be used as a policy variable in statistical analyses. One way to obtain it would be by calculating the surface area of radar charts. In this study, however, the index is computed following the approach by Smith and Williams (2007), because the former method is sensitive to how policy components are displayed in the chart. First, a multiplicative method is applied to sum the products of individual scores. Second, the multiplicative coefficient is smoothened by taking n th root of a sum of the figures obtained multiplicatively. The final

product score can be interpreted as the mean value of a binominal distribution (Argasinski and Kozlowski 2008: 253). The composite score is derived through a standard mathematical procedure and only policies with consistently high scores on their components obtain a high overall score. Correspondingly, only policies with consistently low scores on their components obtain a low score. This method can be employed for each policy separately (e.g. to test individual policy effect), using the following formulae:

$$\text{Leave index} = \sqrt[6]{\text{sumproduct}}$$

$$\text{Day care index} = \sqrt[6]{\text{sumproduct}}$$

$$\text{Composite index} = \sqrt[12]{\text{sumproduct}}$$

sumproduct = the sum of products of individual scores: each policy is a configuration of six components, and the composite index of twelve components

Mathematical procedures result in the composite indices ranging between 1 and 8: each score reveals how far (or close) a national policy is from the optimum (i.e. 8). The advantage of this method refers to what is called “the inequality of arithmetic and geometric means” (e.g. Beckenbach and Bellman 1961: Theorem 1, p. 4). This states that when we take an average over a set of n positive numbers by dividing their total sum by n , the value we get is never smaller than the one we get by taking n th root of their product. In other words, the additive method always yields a more favourable picture than the multiplicative method (the sum score is always higher than the product score). Furthermore, the multiplicative method increases the difference in fitness and is selectively more neutral (Smith and Williams 2007: 183).⁸

No explicit weights are imposed and all twelve dimensions are considered to be “relatively equal in terms of equal intrinsic importance as a component” of childcare policy (Ura 2008). One might argue that length of leave and income support during leave should be given greater weight than flexibility or daddy-only days on the grounds, for example, that length and payments are more important for female employment, or that they are better indicators. However, there is no evidence to sustain such argument. Moreover, how should they be weighted? In the absence of any theoretical or empirical justification no explicit weighting is employed. Thus, it should be emphasized that a large deficit in any particular dimension has a magnified negative effect on the index (Bates 2009: 11), and the sufficiency cut-off point for particular dimensions could have a substantial impact on the score. Moreover, the scores are sensitive to any interaction among policy components, and low values in one component could be compensated by high values in another. Each component is nevertheless making an independent contribution to the index, and each is relevant for determining policy emancipatory potential. Furthermore, this methodology

⁸ An example: policy in one country is almost fully supportive in terms of five out of six components, but the sixth is very remote from the optimum. With the additive method it is clear that this policy receives 6.8 points out of 8. But with the multiplicative method, it receives a product score of 5.7 points out of 8. Therefore, the product score reflects the volume of the corresponding policy components, whereby each component is considered a separate dimension. Let me give another example. Suppose we have three countries and two policy components. Length of leave is optimal but leave is not flexible in Slovenia. Therefore, policy gets 8 for length and 2 for flexibility. In Latvia it is the contrary: 8 for flexibility and 2 for length. Finally, Lithuanian state grants fairly supportive length and flexibility, say 5 and 5. The sum score yields the same figure (5) for all three countries. But with the multiplicative approach, one gets 4 for Slovenia and Latvia, and 5 for Lithuania, which is a more correct index score. Overall, a product score produces more adequate scores across countries.

enables the index to be decomposed in various ways, for example to identify any shortfalls in individual policies.

Results: Varieties of familialism

Policy analysis of eight post-socialist countries using composite indexing shows remarkable intra-group variations in countries generally treated as one welfare state regime. Figure 1 provides index scores: the higher the score the closer the policy to the optimal provision, with Slovenia at the top and Czech Republic at the bottom of the ranking. However, index scores do not signal policy design – that is, how complex national policies are.

[Figure 2: National policies by index scores - about here]

To provide insight into the policy landscape and any inconsistencies in policies, radar charts summarize policies as configurations of twelve policy components: the right-hand side illustrates the leave policy, the left-hand side childcare provision. Different lines illustrate policy shifts between 2000 and 2008. Because national statutory policy provisions during the studied period did not change significantly over a single year, policy information is summarized in two points in time: 2001 and 2007. 2001 reports policies in the first stage of the ‘stabilisation period’, when the new economic order was established, and 2007 depicts the policy developments up to 2008.

[Figure 3. Radar charts - about here]

Charts compare and contrast national policies on leave and childcare provisions and clearly demonstrate that these comprise specific policy packages (also Bettio and Plantenga 2004). A mixed policy panorama suggests three tentative clusters. (1) Slovenian and Lithuanian policies display the highest overall performance in terms of government efforts to support mothers’ employment with more coherent gender logics: states explicitly prioritize mothers’ employment, and thus the leave generates incentives for mothers’ continuous employment and encourages fathers to participate in care. Municipal childcare centres open access to all children aged between one year and mandatory school age, and there are few privately run centres that receive public funds. States regulate and oversee service provision, and ensure fair access to public services across the geographical areas of the state. These are more compatible with continuous, full-time employment of mothers, as well as increase the demand for care workers (Bettio and Plantenga 2004). (2) Hungary, Czech Republic and Estonia subsidize family care with practically no public childcare options for the youngest children. Although their policy provisions appear diversified (children can be admitted to childcare centre before parental leave ends), childcare for under-3s is limited, with strong urban/rural divides, especially in Czech Republic. By relying on and investing in family care for the youngest children they explicitly privilege male breadwinner/female caregiver family model and intra-country variation in service provision reduces parents’ opportunities to choose public care. (3) Poland, Slovakia (and Latvia) delegate care management to the family by neither investing in family care

or public childcare. Latvia, however, makes an atypical case in this group: whilst it scores high on leave dimension, its score on service provision, especially for children 0-3, is not favourable. Thus, all three let private childcare markets thrive and expand; families with care needs incur higher costs of care, and access to childcare depends on household's market resources and/or alternative care options (Leitner 2003; Korpi 2000: 144). Overall, the policy landscape suggests that the policy agendas of the eight countries are not sufficiently framed to meet the needs of a dual-earner/*dual-carer* family model, and hence do not enable carers to manage work/family demands without hampering women's employment or trading-off between different lifestyles.

Policy dynamics

Between 2000 and 2008, small-scale policy changes were continuously taking place in the eight countries, a process Hall calls "normal policymaking" (Hall 1993: 278-80). Compared with socialist period (Javornik 2010), policy alterations have largely remained within the overall logics of national policies. However, it is tempting to speculate whether the different policy clusters would survive in the near future.

Estonian and Lithuanian policies seem most prone to change. There, intensive intervention projects in extending paid parental leave have become increasingly prominent mechanisms to address inadequate service provision for the youngest. The slow accumulation of moderate extensions could strengthen their currently weak conformity to individual policy clusters. And unless they improve service provision for the youngest, their policy would shift towards explicitly familialistic, with potentially negative impact on mothers' employment. The question remains, however, how established interests and party-political compromises in the recent economic hardship would shape and inform national policies and how central childcare is in negotiation for limited state support. Policies mindful of pluralistic needs of families could close many social cleavages, would positively impact upon the demographic outlooks as well as win some electoral votes.

Some perspectives for conceptual development of varieties of familialism

The clustering should be considered as tentative. However, it should not be ignored that these "broadly similar" 'post-socialist states' share core characteristics with Esping-Andersen's (1990) three worlds of welfare capitalism and Korpi's (2000) typology of state familialism. This clustering offers some perspectives for further academic debate about the applicability of the welfare state regimes literature to the post-socialist countries. (1) Policies in the defamilialistic group could be paired with social democratic ideas of Nordic states: in both instances states are active player in providing generous, but gender-neutral childcare policies. Childcare is viewed as social responsibility and states support 'dual-earner/public-carer' family model, which allows women's command of economic resources independently of their familial reciprocities (Korpi 2000: 144). (2) Policies in the explicitly familialistic cluster are generally embedded in the socially conservative principles about family and gender role: in both childcare policies are shaped by

the principle of ‘subsidiarity’, which stresses the primacy of the family (and community) for providing care for the youngest children. Hence, the welfare state supports a single-earner model family (Korpi 2000). And (3), policies in the implicitly familialistic model resemble characteristics of the market-oriented (liberal) model of the Anglo-Saxon countries, where social benefits are largely organised to reflect and preserve the consumer and employers markets, and most entitlements are means-tested (Esping-Andersen 2002: 44). This finding suggests that the welfare-state principles underlying Esping-Andersen’s welfare state regimes are correlated with those that shape childcare policies (also Gornick and Meyers 2003: 23).

On the other hand, country clusters in the present study only partially correspond with Szelewa and Polakowski’s (2008) grouping.⁹ The two studies yield different results, whereby classifications correspond only with regard to the Czech Republic and Poland. Different findings can be largely explained by different methodological approaches. Namely, the main limitation of the earlier study is its exclusion of data on nursery provision. Because nursery provision remarkably differs among these countries, exclusion of this data significantly impacts the findings. When indicators do not correspond to relevant age groups, we are likely to go wrong in assessing state de-familialism, because any inconsistencies between policies on leave and childcare provision are likely to be masked.

Discussion and conclusion

Recent demographic outlooks across the European Union are pushing for women’s employment, and families are increasingly burdened. All EU member states have been called on to take action to allow women and men to better reconcile work and family (Plantenga et al. 2009: 19), and the EU research agenda has shifted toward defining functional equivalents of governments’ efforts to facilitate this balance. Comparing welfare policy patterns over time and across countries in a comprehensive quantitative manner requires not only underlying theoretical concepts which are suited for travelling across countries, but also necessarily valid data.

This paper developed an integrated analytical concept for analyzing policy incentives. It illustrated how disaggregated policy data provided by national regulations instead of aggregate data on policy delivery can be adopted for the operationalization and how using such data enables us to integrate post-socialist countries in the corpus of comparative welfare state typologies – an attempt which has gained little methodologically substantiated attention in comparative studies so far. Drawing on integrated analytical approach, a three-cluster typology of familialism conceptualisation is derived, which shares core characteristics with Esping-Andersen’s (1990) typology. This finding suggests a nuanced picture of post-

⁹ In their 2008 study, authors used Leitner’s (2003) analytical framework to group the same post-socialist countries between 1989 and 2004 along the same two policies, but using different policy data.

socialist countries. It challenges the overly simplistic characterization of national policies in earlier comparative research as well as the 'conventional' expectations that these countries form a single welfare regime. It clearly illustrates empirical payoffs of integrating policy details and demonstrates that we would fail to understand state de-familialism correctly unless relevant policy details and indicators are used.

Furthermore, a composite index is formed by compiling individual indicators into a single (numeric) variable. In general terms, this policy index is an aggregate measure of state de-familialism derived from a series of policy elements. With regard to the applied methodology, it is constructed in such a way that its value indicates the distance from the optimal policy, with which states challenge gender-specific parenting; employing radar charts to present policies facilitates users to compare policy dimensions effectively. When evaluated at regular intervals, it can point out the direction of change across countries and through time. In the context of social policy analysis, this index is also useful in identifying trends and drawing attention to particular issues, for example to evaluate whether policies reflect state assumptions of a 'conventional' family model and whether states curtail social rights of various target groups (e.g. single parents, ethnic minority groups, same-sex partner). It can also be helpful in setting policy priorities and in benchmarking or monitoring performance. Because policy components are measured individually, this index is also actionable: the assessment gives the states the ability to manage childcare policies by undertaking actions to improve them. Moreover, as a grouped variable this index has an enhanced explanatory potential, and hence can be used in any type of statistical analysis.

In sum, the composite indexing presented herein is a valuable addition to the family of analytical instruments for theoretical policy analysis. First, its invaluable feature is the attempt to engender a dialogue between theory and data. Great attention is paid to the analytical construction, deriving standards from a large body of studies across academic disciplines. In the methodological respect, this approach addresses a call for researchers "to attend to more finely grained variables that may more fully capture" policy character (Byron 2005: 169). Second, it enables fine-grained, theoretically informed analysis of policy complexity and diversity (Plantenga et al. 2009: 25). In its design and focus it resembles Ragin's fuzzy-sets approach. But, relative to the former, it is more suitable for clustering countries along policy characteristics with qualitative attributes, because it does not require excessive recourse to less adequate data. Hence, it offers a critical background on how policy designs reflect state assumptions about "proper" gender roles. Overall, it is like a "high resolution lens which allows us to operate with shades of grey" (Kvist 2006: 174). Step-by-step, it simplifies policy complexity in a theoretically-guided but highly analytical way. It facilitates a big-picture view of overall childcare policy and changes over time as well as more detailed perspectives on its salient features – that is, "a holistic overview that is not present in conventional statistical methods" (Kvist 2006: 184). Because it summarises multi-dimensional concept of state de-familialism (also with a view to supporting policy-makers), policies are easier to interpret than a battery of many separate indicators. Thereby, it facilitates policy analysis of countries over time and enables various users to compare complex dimensions effectively.

Notwithstanding its advantages, there are some pertinent shortcomings and potential problems to applying it in comparative research. First, composite indexing owes more to the craftsmanship of the modeller than to universally agreed scientific rules. As there are no agreed ways to assessing policies, not one element of composite indexing is above criticism; the justification for a composite index therefore lies in its fitness for the intended purpose (OECD 2008). Just as with any other method it is therefore required that assessing standards are theoretically and/or empirically well justified, consistent and reliable codes applied uniformly across the samples, and the scores retrospectively validated. Second, this index applied no weights. If index scores are contrasted to policies displayed in radar charts, it is clear that the indices compensate low values in one component by higher values in another. This paper demonstrates that policies have a cumulative effect, which is critical for any gendered policy analysis. But in order to understand this cumulative effect, further empirical research should produce information about weighting in future indexing. Third, comparison bias is inherent in composite indexing insofar as it includes differences within the country sample. However, the composite indices are all relative in nature, since, in fact, their primary aim is to compare countries relative to some standard of achievement (in this case state defamilialism). Therefore, this standard is by default set relative to “the limits of achievement” applied during the scaling. And finally, countries are characterized by internal diversity and variation, either locally or vertically in terms of social strata: social, economic, cultural, ethnic and religious diversity make ‘state support’ and ‘policy incentives’ more difficult to conceptualize/measure. However, any standardized data on intra-country differences is scant, inconsistent, often not translated into other languages, and lack of any such data hinders comparative research. In many respects, comparative research would greatly benefit from more widely available data. Despite important contributions that have highlighted the need for systematic incorporation of more detailed policy information, available international databases have not kept pace with such developments. This new approach develops one way around this problem. But, given the importance of various types of data, its wider availability is warranted for further comparative research as well as for policy-making.

Bibliography

- Adelman, I., Morris, C.T. (1972). »The measurement of institutional characteristics of nations. Methodological considerations.« Journal of Development Studies 8: 111-135.
- Argasinski, K. and Kozłowski, J. (2008). "How can we model selectively neutral density dependence in evolutionary games." Theoretical Population Biology 73(2): 250-256.
- Babbie, E. (1995). *The Practice of Social Research*. Wadsworth, Washington.
- Bates, W. (2009). "Gross national happiness". Asian-Pacific Economic Literature 23(2): 1-16.
- Beckenbach, E. F. and Bellman, R. (1961). *An Introduction to Inequalities*. Berlin, Göttingen, Heidelberg, Springer Verlag.
- Bettio, F. and Plantenga, J. (2004). "Comparing Care Regimes in Europe." Feminist Economics 10(1): 85-113.
- Booyens, F. (2002). »An Overview and Evaluation of Composite Indices of Development.« Social Indicators Research 59(2): 115-151.
- Bradshaw, J., Hoelscher, P. and Richardson, D. (2006). "Comparing child well-being in OECD countries: concepts and methods." Innocenti Working Paper no. 3. Florence, UNICEF Innocenti Research Centre.
- Byron, K. (2005). »A meta-analytic review of work-family conflict and its antecedents.« Journal of Vocational Behavior, 67(2): 169-198.
- Datta Gupta, N., Smith, N. (2001). "Children and Career Interruptions: The Family Gap in Denmark" IZA Discussion Paper 263, IZA.
- Diener, E., Suh, E. (1997). »Measuring quality of life: Economic, social, and subjective indicators.« Social Indicators Research 40: 189-216.
- Dogan, M. (2004). The quantitative method in comparative research. A Handbook of Comparative Social Policy. Kennett, P. Cheltenham, UK and Northampton, USA, Edward Elgar: 324-338.
- Dowrick, S. And Quiggin, J. (1998). "Measures of economic activity and welfare: the uses and abuses of GDP". In: R. Eckersley (ed.). *Measuring Progress: is life getting better?* CSIRO Publishing, Collingwood: 93-121.
- Dunn-Rankin, P. (1983). *Scaling Methods*. Lawrence Erlbaum, London.
- Esping-Andersen, G. (1990). *The three worlds of welfare capitalism*. Cambridge, Polity Press.
- (2002). A Child-Centred Social Investment Strategy. Why We Need a New Welfare State. Esping-Andersen, G., Gallie, D., Hemerijck, A. and Myles, J. Oxford, Oxford University Press: 26-67.
- Fagan, C. and Hebson, G. (2005). 'Making work pay' debates from a gender perspective. A comparative review of some recent policy reforms in thirty European countries. Brussels, European Commission.
- Friendly, M. (1991). "Statistical Graphics for Multivariate Data". Paper presented at the SAS SUGI 16 Conference. <http://www.math.yorku.ca/SCS/sugi/sugi16-paper.html>. [accessed May 2012].
- Gilbert, N. (2008). *A Mother's Work. How Feminism, the Market, and Policy Shape Family Life*. New Haven and London, Yale University Press.
- Ginsberg, N., Osborn, J., Blank, G. (1986). *Geographic perspectives of the wealth of Nations. Department of Geography Research Paper No. 220*. University of Chicago, Chicago.
- Gornick, C. J. and Meyers, K. M. (2003). *Families that work. Policies for Reconciling Parenthood and Employment*. New York, Russell Sage Foundation.
- Gornick, J. C., Meyers, M. K. and Ross, K. E. (1997). Supporting the Employment of Mothers: Policy Variation Across Fourteen Welfare States. Working Paper No. 139. Luxembourg, LIS.
- Hall, P. (1993). "Policy Paradigms, Social Learning, and the State: The Case of Economic Policymaking in Britain". Comparative Politics, 25(3): 275-296.
- Hobson, B. (1994). Solo Mothers, Social Policy Regimes and the Logics of Gender. Gendering Welfare States. Sainsbury, D. London, Sage Publications.
- Javornik, J. (2010). *Exploring Maternal employment in post-socialist countries. Understanding the Implications of Childcare Policies*. PhD Thesis, University of Southampton.
- Jaumotte, F. (2003). »Female Labour Force Participation: Past Trends and Main Determinants in OECD Countries.« Economics Department Working Papers No. 376. OECD Working Papers. Paris, OECD.
- Kangas, O. and Rostgaard, T. (2007). "Preferences or institutions? Work family life opportunities in seven European countries." Journal of European Social Policy 17(3): 240-256.
- Kangas, O., Emmenegger, P. (2010). »Neglected issues and innovative methods: Identifying best practice.« 8th ESPAnet, Budapest, 2-4 Sept.
- Kershaw, P. (2010). »The Just Commodation of Women, Equal Care Obligation for Men, and Autonomous Households: Gendering the Comparative Analysis of Welfare States in 20 OECD Countries.« Paper presented at 8th ESPAnet, Budapest, 2-4 Sept.
- Knijjn, T. and Kremer, M. (1997). "Gender and the Caring Dimension of Welfare States: Toward Inclusive Citizenship." Social Politics 4(3): 328-361.
- Korpi, W. (2000). "Faces of Inequality: Gender, Class, and Patterns of Inequalities in Different Types of Welfare States." Social Politics 7(2): 127-191.
- Kvist, J. (2006). Diversity, Ideal Types and Fuzzy Sets in Comparative Welfare State Research. Innovative Comparative Methods for Policy Analysis. Beyond the Quantitative-Qualitative Divide Rihoux, B. and Grimm, H., Springer US: 167-184.
- Lambert, P. A. (2008). "The Comparative Political Economy of Parental Leave and Child Care: Evidence from Twenty OECD Countries." Social Politics 15(3): 315-344.
- Leitner, S. (2003). "Varieties of Familialism. The caring function of the family in comparative perspective." European Societies 5(4): 353-375.
- Lewis, J. (1992). "Gender and the Development of Welfare Regimes." Journal of European Social Policy 2(3): 159-173.
- Lewis, J. (2010). *Work-family balance, gender and policy*. Cheltenham, UK and Northampton, USA, Edward Elgar.

- Mandel, H., Semyonov, M. (2005). »Family Policies, Wage Structures, and Gender Gaps: Sources of Earnings Inequality in 20 Countries«. *American Sociological Review*, **70**(6): 949-67.
- Mangen, S. (2004). "Fit for purpose? Qualitative methods in comparative social policy." *A Handbook of Comparative Social Policy*. Kennett, P. Cheltenham, UK and Northampton, USA, Edward Elgar: 307-323.
- McGranahan, D. (1995). »Measurement of Development: Research at the UN's Research Institute for social development«. *International Social Science Journal* 143: 39-57.
- Miller, J. (2005). *The Chicago Guide to Writing about Multivariate Analysis*. Chicago and London, The University of Chicago Press.
- Misra, J., Moller, S., Budig, M. (2007). »Work-Family Policies and Poverty for Partnered and Single Women in Europe and North America«. *Gender and Society*, **21**(6): 804-827.
- Morgan, J.N. (1968). »The supply of effort, the measurement of well-being, and the dynamics of improvement«. *American Economic Review* 58: 31-39.
- Mosley, H. and Mayer, A. (1998). Benchmarking National Labour Market Performance: A Radar Chart Approach. Final Report. Berlin, Wissenschaftszentrum Berlin für Sozialforschung.
- OECD (2008). *Handbook on Constructing Composite Indicators. METHODOLOGY AND USER GUIDE*. OECD, Paris.
- O'Reilly, J. (2006). "Framing comparisons: gendering perspectives on cross-national comparative research on work and welfare." *Work Employment Society* **20**(4): 731-750.
- Orloff, A. S. (1993). "Gender and the Social Rights of Citizenship: The Comparative Analysis of Gender Relations and Welfare States." *American Sociological Review* **58**(3): 303-328.
- Pascall, G. and Lewis, J. (2004). "Emerging Gender Regimes and Policies for Gender Equality in a Wider Europe." *Journal of Social Policy* **33**(3): 373-394.
- Pascall, G. and Manning, N. (2000). "Gender and social policy: comparing welfare states in Central and Eastern Europe and the former Soviet Union." *Journal of European Social Policy* **10**(3): 240-266.
- Pettit, B. and Hook, J. (2005). "The Structure of Women's Employment in Comparative Perspective." *Social Forces* **84**(2): 779-801.
- Plantenga, J. (2002). "Combining work and care in the polder model: an assessment of the Dutch part-time strategy." *Critical Social Policy* **22**(1): 53-71.
- Plantenga, J. and Hansen, J. (1999). *Benchmarking Equal Opportunities in the European Union. Synthesis report based on eight European countries*. Report for the Commission of the European Communities. Utrecht, Institute of Economics, Utrecht University.
- Plantenga, J. and Remery, C., Eds. (2005). *Reconciliation of work and private life: A comparative review of thirty European countries*. Brussels, European Commission.
- Plantenga, J., Remery, C., Figueiredo, H. and Smith, M. (2009). "Towards a European Union Gender Equality Index." *Journal of European Social Policy* **19**(1): 19-33.
- Pylkkänen, E. and Smith, N. (2003). *Career Interruptions due to Parental Leave: A Comparative Study of Denmark and Sweden*. OECD, Paris.
- Ragin, C.C. (2009). Calibration Versus Measurement. *Methodology volume of Oxford Handbooks of Political Science* Collier, D., Brady, H. and Box-Steffensmeier, J. Oxford, Oxford University Press.
- Ruhm, C. J. (1998). "The Economic Consequences of Parental Leave Mandates: Lessons from Europe." *The Quarterly Journal of Economics* **113**(1): 285-317.
- Rubery, J., Smith, M., Fagan, C. and Grimshaw, D. (1998). *Women and European Employment*. New York, Routledge.
- Sainz, P. (1989). »An index of social welfare.« In F. Brando (ed.): *Towards a New Way to Measure Development. Report on the International Meeting on More Effective Development Indicators*, p. 156-160.
- Schütz, H., Speckesser, S. and Schmid, G. (1998). Benchmarking Labour Market Performance and Labour Market Policies: Theoretical Foundations and Applications. *Discussion Paper FS I 98 - 205*. Berlin, Wissenschaftszentrum Berlin für Sozialforschung.
- Smith, J. A. and Williams, R. D. (2007). "Father-Friendly Legislation and Paternal Time across Western Europe." *Journal of Comparative Policy Analysis* **9**(2): 175-192.
- Sen, A. (2000). "A decade of human development". *Journal of Human Development* **1**(1): 17-23.
- Sobotka, T. (2004). *Postponement of Childbearing and Low Fertility in Europe*. Amsterdam, Dutch University Press.
- <http://www.u.arizona.edu/~cragin/fsQCA/download/Calibration.pdf> [last accessed April 2009].
- Stier, H., Lewis-Epstein, N. and Braun, M. (2001). "Welfare Regimes, Family-Supportive Policies and Women's Employment Along the Life-Course." *American Journal of Sociology* **106**(6): 1731-1760.
- Szelewa, D. and Polakowski, M. P. (2008). "Who cares? Changing patterns of childcare in Central and Eastern Europe." *Journal of European Social Policy* **18**(2): 115-131.
- Thiessen, H. (1997). *Measuring the Real World: A Textbook of Applied Statistical Methods*, John Wiley&Sons: Chichester.
- Tronti, L. (1998). *Benchmarking employment performance and labour market policies. Final report 1997*. Berlin, Institute for Applied Socio-Economics.
- Ura, D. K. (2008). GNH Index. Paper presented at 4th International Gross National Happiness Conference, Thimphu.
- <http://www.bhutanstudies.org.bt/admin/pubFiles/12.GNH4.pdf/> [last accessed August 2009]
- von Wahl, A. (2005). "Liberal, Conservative, Social Democratic, or ... European? The European Union as Equal Employment Regime." *Social Politics* **12**(1): 67-95.
- Wall, K., Pappamikaail, L., Leitao, M., Marinho, S. and Deven, F. (2009). Family Policy in Council of Europe member states. Two expert reports commissioned by the Committee of Experts on Social Policy for Families and Children. Strasbourg, Council of Europe.
- Wilson, R.K., Woods, C.S. (1982). *Patterns of World Economic Development*. Longman Sorrett, Melbourne.

Figure 1. Policy dimensions, assessment criteria, scores

SCORE	POLICY COMPONENT	
	Total length of leave time	
8	Minimum 6 months, maximum 1 year	
4	More than 1 year but less than 2 years	
2	2 years but less than 3 years	
1	Less than 6 months or 3 years and over	
	Financial sustainability of total leave	
8	Leave paid at 80-100 per cent of previous earnings for 50 to 54 weeks	
4	80-100 per cent of previous earnings for 50 to 54 weeks, thereafter low flat-rate	
2	Leave paid at less than 70 per cent for over 54 weeks (wider gaps between total leave time and leave in full-time equivalents)	
1	Leave paid at minimum 70 per cent of previous earnings for over 54 weeks (narrow gaps)	
	Job security	
8	Leave-users retain a contract and associated benefits to their previous job or equivalent during parental leave	
4	Leave-users retain a contract and associated benefits to their previous job or equivalent during parental leave, but income support payment exceeds the period of a job-secured leave (i.e. covers extended childcare leave)	
2	Leave-users retain a contract, but leave does not guarantee the full set of rights for persons returning from leave	
1	Job not protected	
	Parental entitlement (excl. maternity and paternity)	
8	Individual right to leave and income support payment	
4	Individual right to leave but income support payment is transferable (concurrent use available, only one parent entitled to the income support)	
2	Right to leave and income support payment transferable (joint decision on the use)	
1	A non-transferable right or one parent entitled to a shorter period of parental leave than the other	
	Father's entitlement	
8	Minimum one month and over, paid at 80-100 per cent of previous earnings	
4	Minimum two weeks but less than a month paid at 80-100 per cent at the time of childbirth with extra entitlement to paternity leave that can be spread more thinly over a longer period of time with no income support payment	
2	Less than two weeks at 80-100 per cent	
1	No individual provision	
	Flexibility	
8	Leave can be used in sections over a longer period of time (8 years), reduced working hours allowed with proportional reduction in benefits	
4	Leave in sections over a shorter period of time (until child turns 3 or 4 years of age) or a small portion of parental leave can be reserved (and/or taken in sections until child turns 8 years), limited gainful activity allowed (reduced working hours with proportional reduction in leave benefit payments)	
2	Total leave in one block or parents lose part of unused leave, limited gainful activity allowed (reduced working hours with proportional reduction in benefits)	
1	Leave benefits conditional on full-time family care	
	Availability	Allocation of places
8		Open access to crèches and kindergartens, same criteria nationwide, central capacity/demand planning
4		Open access to both, guidelines on criteria, but may vary by municipality, no central capacity/demand planning
2		Open access to both, local government autonomous in setting the access criteria, no capacity/demand planning
1		Conditional access to crèches, open access to kindergartens, no capacity/demand planning
		Admission age to day care
8		No lower age limit
4		Admitted before end of earnings-related (parental) leave
2		Admitted at the end of earnings-related leave
1		Negative time gap between earnings-related leave and starting age, intra-country variation in admission age
		Compatibility of service hours with working hours of parents
8		Regular full-day/week/year service a norm, some flexibility in provision to accommodate parents' special working arrangements
4		Regular full-day/week/year service, no flexibility in provision to accommodate parents' special working arrangements
2		Regular full-day/week/year service a norm, spells of shorter breaks over the year
1		Intra-country variation in service hours
		Compulsory schooling age¹
8		At age 5
4		At age 6
1		At age 7
	Affordability	Parental fees adjusted according to:
8		Free of charge (parents pay the meals)
4		Family income and number of children
2		Criteria other than income and family size
1		Local governments autonomous in setting the rules, no central ceiling for the fees, intra-country variation
	Quality	National co-ordination of service delivery
8		Service provision is a joint responsibility of the state and municipality, centrally set (uniform) standards of provision
4		Service provision is a statutory duty of the municipality (to establish and administer both crèches and kindergartens), norms/standards defined and regulated at state level
2		Statutory duty of the municipality (to establish and administer both crèches and kindergartens), local governments autonomous in some elements of service provision
1		Local governments autonomous in service provision, crèches at discretion of the municipality, kindergartens a statutory duty

Note: ¹A 3-score scale used because only three different provisions exist among the eight countries.

Figure 2. Index scores

Composite policy index (score, max = 8)

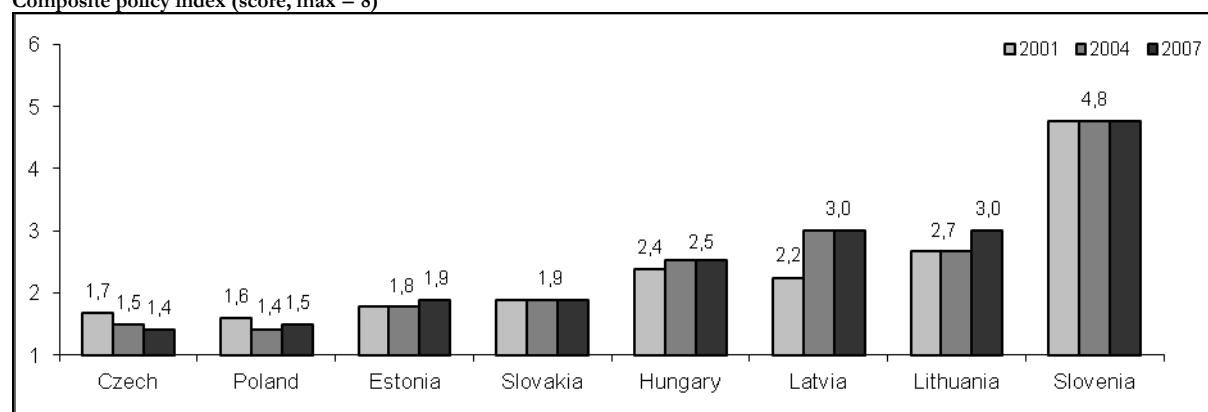


Figure 3. National policies on childcare, 2000-2008, in index scores (max = 8)

